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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,921	09/18/2003	Ralph W. Cooper	MAT0001-US1	7057

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EXAMINER

GARBER, CHARLES D

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/665,921

Applicant(s)

COOPER, RALPH W.

Examiner

Charles D. Garber

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/18/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 8-11, 13 and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson (US Patent 5,441,070).

Regarding claims 1, 8 and 15, Thompson discloses a fluid management system determining a leak if pressure decay based on pressure sensor signal and pressure timing means indicate lost pressure while there is no usage (see column 3 lines 13-40 and column 10 line 56 through column 11 line 45).

As for claims 2, 3, 9 and 10, Thompson discloses the fluid system is a house (residential) or structure water supply system (see abstract).

As for claims 4, 11, 17, 18, Thompson discloses the user demand is based on a signal from a flow sensor (FS1, FS2, FS3) coupled to a relay switch. Thompson discloses in US Patent 5,161,563 incorporated in the aforementioned patent by reference that the flow sensors are paddle type flow switches.

A flow meter is "An instrument for monitoring, measuring, or recording the rate of flow, pressure, or discharge of a fluid, as of a gaseous fuel" according to The American Heritage Dictionary of the English Language. The flow sensor of Thompson may be considered to monitor the discharge of flow as in this flow meter definition. In this

respect the flow sensor of Thompson may be considered to be both a flow meter and a flow switch. Thompson specifically identifies the Kobold PSR-5115 flow switch (see attached specification sheet) which has an adjustable activation value inherently equivalent to a preset minimal user flow rate as in the instant invention.

As for claim 6 and 13, Thompson discloses sending an output signal from pressure switch 136 when the pressure is at or below a threshold pressure (column 10 line 67 to column 11 line 5). This signal is used in the determination of excess pressure decay noted above.

As for claim 16, Thompson discloses closing the main shut-off valve (column 11 lines 32-33) in the event the pressure decays while there is no monitored flow.

As for claim 19, Thompson discloses the pressure sensor is a "pressure switch" column 10 line 64).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5, 7, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (US Patent 5,441,070).

Thompson discloses the claimed invention except for threshold values for minimum pressure and flow rate at 15 psi and 0.2 gallons per minute respectively. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide threshold values for minimum pressure and flow rate at 15 psi and 0.2 gallons per minute respectively, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The additional references cited on the accompanying form PTO-892 though not cited above are provided to indicate other prior art method and apparatus monitoring flow for leaks which include one or more features or limitations in common with the instant invention.

Cohen monitors accumulated volume over time to determine leak.

Titus merely teaches "significant deviation in current demand fluid flow from historical demand fluid flow data can be indicative of a leak in the fluid dispensing system"

Bjorkman teaches detecting the presence or movement individuals in the premises to determine discriminate leak flow from normal usage flow.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Garber whose telephone number is (571) 272-2194. The examiner can normally be reached on 6:30 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdg

A handwritten signature in black ink, appearing to read 'Charles', followed by a stylized flourish or mark.

**CHARLES GARBER
PRIMARY EXAMINER**